

BIOLOGY

BOOKS - NTA MOCK TESTS

NEET MOCK TEST 8

Biology Single Choice

1. A typical anther is

A. unilobed

- B. bilobed
- C. trilobed
- D. tetralobed

Answer: B



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2. Which of the following is not a part of the female external genitalia?

A. cervix

- B. Mons pubis
- C. Labia minora
- D. Clitoris



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3. According to the 2011 census, the population growth rate in India was?

A. Less than 2%

- B. 3-4 %
- C. Negative
- D. More than 5%



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4. Which of the following contraceptive devices is having a common mechanism of action?

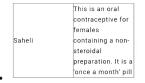
- A. Vaults and condoms
- B. CuT and Multiload 375
- C. Progestasert and Cervical caps
- D. Mala D and Lippes loop

Answer: B



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5. Select the incorrect match.



Male and Female thin rubber/latex sheath. These are applied just before coitus.

It is based on the fact that ovulation and therefore the cycle do not occur during the period of intense lactation following parturition.

These are
considered
relatively safe
during the first
trimester i.e., upto
12 weeks of
pregnancy.

Answer: A



6. Morgan carried out several dihybrid crosses in Drosophila to study genes that were sexually linked with one of them in between

- A. Pea
- B. Butterfly
- C. Drosophila
- D. Honey bee

Answer: C



7. Which one of the following is an example of an autosomal recessive disorder?

- A. Phenylketonuria and haemophilia
- B. colour blindness and haemophilia
- C. Phenylketonuria and thalassemia
- D. Color blindness and sickle cell anaemia

Answer: C



8. Match the column:

Column-I		Column-II	
Α.	$\phi imes$ 174 DNA	(i)	$3.3 imes10^9\mathrm{bp}$
В.	λ - phage DNA	(ii)	$4.6 imes 10^6 \mathrm{bp}$
C.	E. coli DNA	(iii)	48502 bp
D.	Haploid content of human DNA	(iv)	5386 bases

A.
$$A = (iv), B = (iii), C = (ii), D = (i)$$

B.
$$A = (i), B = (ii), C = (iii), D = (iv)$$

C.
$$A = (ii), B = (iii), C = (iv), D = (i)$$

D.
$$A = (i), B = (iv), C = (ii), D = (iii)$$

Answer: A



9. Some of the land reptiles went back into the water to evolve into fish-like reptiles (e.g. ichthyosaurs), probably around

A. 200 mya

B. 500 mya

C. 100 mya

D. 1 bya

Answer: A



10. The novelty and brilliant insight of Drawin was that he asserted that variations, which are ____W___ and which make resource utilization better for few will enable only those to reproduce and leave X . Hence over a period of time there would be Y in population characteristic and hence _____Z___ appear. In the above paragraph, W, X, Y and Z respectively are:

A. Heritable, less progeny, a change, no new

B. Non-heritable, more progeny, a change, new forms

C. Heritable, more progeny, a change, new forms

D. Heritable, less progency, no change, no new forms

Answer: C

forms



11. Which set of pathogens causes similar diseases?

A. Streptococcus pneumoniae and
Haemophilus influenzae

B. Staphylococcus aureus and Haemophilus influenzae

C. Rhinovirus and Haemophilus influenzae

D. Streptococcus pneumoniae and

Rhinovirus



- **12.** I . William Harvey disapproved the 'good humor' hypothesis of health.
- II. Health can be defined as a state of complete physical, mental and social well-being.
- III. Among non-infections diseases, cancer is the major cause of death.
- IV. Many genera like Microsporum,
 Trichophyton, and Epidermophyton are

responsible for ringworms which is one of the most common infectious diseases in man.

How many of the given statements are incorrect?

A. None

B. One

C. Two

D. Three

Answer: B



13. Which of the following are varieties of rice?

A. Pusa Sadabahar and Jagannath

B. Kalyan sona and Sonalika

C. Himgiri and Parbhani Kranti

D. Jaya and Ratna

Answer: D



14. Milk yield is primarily dependent on

- A. Quality of breeds
- B. Absence of disease
- C. Quantity of roughage given to animal
- D. Quantity of concentrate given to animal

Answer: A



15. Match column-I with column-II and select the correct answer from the codes gives below.

Column - I	Column - II		
(A) Trichoderma	(i) Nitrification		
(B) Streptomyces	(ii) Biological control		
(C) Nitrosomonas	(iii) Lactic acid		
(D) Lactobacillus	(iv) Source of antibiotic		

Answer: B



- **16.** Isolated protoplasts from two different varieties of plants, can be fused to get hybrid protoplast. These hybrids are called
 - A. Somaclones
 - B. Somatic hybrids
 - C. Gametic hybrids
 - D. Cytoplasmic hybrids

Answer: B



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17. Eli Lilly, an American company prepared two
DNA sequences corresponding to A and B
chains of human insulin, and introduced them
in plasmids of E. Coli to produce insulin chains.
Chains A and B were produced separately,
extracted and combined by creating

A. Peptide bonds

- B. Ionic bonds
- C. H-bonds
- D. Disulphide bonds

Answer: D



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18. Population density of terrestrial organisms is measured in terms of individual per :

A. $meter^3$

- B. $meter^4$
- C. meter
- D. $meter^2$

Answer: D



- 19. The earthworm in the ecosystem is called
 - A. Producer
 - B. Detritivore

- C. Carnivore
- D. Herbivore

Answer: B



- **20.** Arrange the following ecosystems in the decreasing order of their mean net primary productivity (tons/hectare/year).
- I. Tropical deciduous forest
- II. Temperate coniferous forest

III. Tropical rain forest.

IV. Temperate deciduous forest

V. Desert scrub.

Answer: A



- **21.** David Tilman's long-term ecosystem experiments using outdoor plots showed that
 - A. Increased diversity contributed to higher productivity
 - B. Plots with more species showed less year to year variation in the total biomass
 - C. Biodiversity has no relation with productivity, resistance and stability
 - D. Both (1) and (2)

Answer: D



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22. The total area covered by all the biodiversity hotspots is

A. 8. 1%

B. 2. 4%

C. Less than $2\,\%$

D. 30 %

Answer: C



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23. In an aquatic ecosystem, maximum biomagnification is seen in

- A. Phytoplanktons
- B. Zooplanktons
- C. Large fishes
- D. Fish-eating birds

Answer: D



- **24.** The word systematics is derived from the latin word 'systema' which means?
 - A. Greek, evolutionary classification
 - B. Latin, systematic arragement of organisms
 - C. English, taxonomy of organisms

D. Both (A) and (C)

Answer: B



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25. Anisogamous conditions is seen in

A. Spirogyra

B. Volvox

C. Fucus

D. Chlamydomonas

Answer: D



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26. Which of the following has the largest gametophyte?

- A. Funaria
- B. Selaginella
- C. Pinus
- D. Oryza



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27. Most of the asymmetrical acoelomates belong to phylum?

- A. Porifera
- B. Ctenophora
- C. Cnidaria
- D. Echinodermata



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28. Select the incorrect match.

A. Trimerous - Liliaceae

B. Tetramerous - Solanaceae

C. Pentamerous-Solanaceae

D. Pentamerous - Fabaceae

Answer: B

- **29.** How many of the following statements are correct?
- 1. Conjoint vascular bundles are not present in monocot stem.
- 2. Casparian strips of endodermis are made of cutin.
- 3. Pith is large and well developed in monocot roots.
- 4. Trichome helps in water loss due to transpiration.

- A. One
- B. Two
- C. Three
- D. Four



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30. Which of the following does not participate in excretion in cockroach?

- A. Fat body
- B. Phallic gland
- C. Uricose gland
- D. Malpighian tubules.

Answer: B



- 31. How many of the given statements are true?
 - A. The dry surface of the skin and the moist

surface of the buccal cavity, are lined by compound epithelium.

B. Cuboidal epithelium facilitates diffusion across the epithelium.

C. Intercalated discs are the cell junctions between the cardiac muscle cells.

D. Skeletal muscle fibers can be located in the biceps muscle.

E. In a bone, osteocytes are located in lacunae.

A. Two

B. Three

C. Four

D. All

Answer: C



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32. A complete set of chromosomes inherited as an unit from one parent is known as :-

- A. Genome
- B. Genotype
- C. Karyotype

D. Chromosomes

Answer: A



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33. Which of the following is not a part of a nucleotide?

- A. Phosphate
- B. Nitrogenous base
- C. Fatty acid

D. Pentose sugar

Answer: C



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34. How many of the given statements are incorrect?

A. Nucleolus and nuclear membrane disappear in prophase.

B. Synaptonemal complex formation occurs during zygotene.

C. The enzyme responsible for crossing over in pachytene is recombinase.

D. Chiasmata formation occurs in diakinesis.

A. One

B. Two

C. Three

D. Four

Answer: D



35. The phenomenon of uptake of water at the expense of energy by the cell and usually against the osmotic gradient is known as

- A. Osmosis
- B. Active absorption
- C. Passive absorption
- D. Imbibition

Answer: B



36. Conversion of $NO_3 o NO_2 o NH_4$ is called _____ and is catalyzed by _____ .

A. Nitrate assimilation, nitrate and nitrite reductase

B. Nitrification, nitrate and nitrite reductase

C. Ammonification, glutamate dehydrogenase

D. Denitrification, transaminase

Answer: A



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37. Stroma lamellae membrane lacks

- A. PS I only
- B. PS II only
- C. PSI and electron carriers
- D. PS II and NADP reductase

Answer: A

38. How many additional ATP are used during synthesis of two molecules of hexose sugar in maize than tomato?

A. 12

B. 36

C. 8

D. 24

Answer: D

39. End product of glycolysis is

A. 2 ATP, 2 Pyruvic acid

B. 2 ATP, 2 FADH_(2), 2 Pyruvic acid

C. 2 ATP, 2 NADH + $H^{\,+}\,,\,$ 2 Pyruvic acid

D. 6 ATP, 2 NADH + $H^{\,+}\,,\,$ 2 Pyruvic acid

Answer: C



40. Which one of the following pairs is not correctly matched?

A. Abscisic acid-Stomatal closure

B. Gibberellic acid-Leaf fall

C. Cytokinin-Cell division

D. IAA - Cell wall elongation

Answer: B



41. Which one of the following is a set of natural growth regulators?

A. NAA, IAA, IBA

B. 2, 4- D, IBA, BAP

C. 2, 4-D, ABA, Ethylene

D. IAA, ABA, Zeatin

Answer: D



42. Which of the following correctly explains the absorption of amino acids?

A. Amino acids are mostly absorbed into the blood by active absorption. Small amounts of amino acids are generally absorbed by simple diffusion. Some amino acids are generally absorbed by simple diffusion. Some amino acids are absorbed by facilitated transport.

- B. Amino acids are mostly absorbed into the blood by active absorption. Small amounts of amino acids are generally absorbed by facilitated transport. Some amino acid are absorbed by simple diffusion.
- C. Amino acids are mostly absorbed into the blood by simple diffusion. Small amounts of amino acids are generally absorbed by active transport. Some

amino acids are absorbed by facilitated transport.

D. Amino acids are mostly absorbed into the blood by facilitated transport. Small amounts of amino acids are generally absorbed by active absorption. Some amino acids are absorbed by simple diffusion.

Answer: A



43. Inspiration can occur if the intrapulmonary pressure is _____A___ than the atmospheric pressure. Inspiration is initiated by the contraction of diaphragm which increases the volume of thoracic chamber in the _____B___ axis.

	А	В
Δ	More	Antero-posterior
١.		

D. A B less Dorso-ventral

Answer: B



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44. Most suitable reason why SA node act as pacemaker for heart.

A. It is located in the right atrium

B. It is made up of neural tissue.

C. It is first to generate the nerve impulse.

D. It can generate the maximum number of action potentials per units time.

Answer: D



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45. Read the following functions and identify the part of nephron responsible for it.

A. Nearly all of the essential nutrient and 70-80% of electrolytes and water are reabsorbed by this segment.

B. Conditional reabsorption of ${\it Na}^+$ and water takes place in this segment.

C. Large amount of water could be reabsorbed from this region to produce concentrated urine.



Answer: B



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46. Select the correct match from the following options.

A. Nissl's granules-Found in axon.

B. Non-myelinated neurons of peripheral

nervous system - Schwann cells present

but do not secrete myelin sheath.

C. Unipolar neuron - Possess 1 dendrite

D. Sodium - potassium pump - Tansports

 $2K^{\,+}$ into the intracellular fluid.

Answer: B



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47. What is the source of gonadotropin-releasing hormone?

A. Hypothalamus

B. Anterior lobe of pituitary

- C. Posterior lobe of pituitary
- D. Intermediate lobe of pituitary

Answer: A



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48. Many hormones are released from various endocrine glands of the body. Match the

endocrine glands with the product hormones.

	Column I		Column II
Χ	Hypothalamus	1	Prolactin
Υ	Thyroid gland	2	Somatostatin
Z	Pituitary gland	3	Thyroxine
		4	MSH
		5	ADH
		6	Oxytocin
		7	Calcitonin

A. X - 2, 5, 6, Y - 3, 7, Z - 1, 4

B. X - 2, 6, Y - 3, 7, Z - 1, 4, 5

C. X - 5, 6, Y - 3, 7, Z - 1, 2, 4

D. X -1, 5, 6, Y - 3, 7, Z - 2, 4

Answer: A



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49. Root hairs are found in which region of the root?

- A. Root cap region
- B. Region of meristematic activity
- C. Region of elongation
- D. Region of maturation

Answer: D



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50. Identify the autoimmune disease among the following.

- A. Myasthenia gravis
- B. Albinism
- C. Muscular dystrophy
- D. Endemic goitre

Answer: A



- **51.** The forebrain in human consists of cerebrum, diencephalon and
 - A. Mesencephalon
 - B. Rhinencephalon
 - C. Pons varolii
 - D. Medulla oblongata

Answer: B



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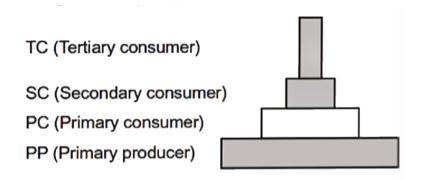
52. The given ecological pyramid is TC (Tertiary

consumer)

SC (Secondary consumer)

PC (Primary consumer)

PP (Primary producer)



- A. Pyramid of energy for grassland and pyramid of biomass for a lake
- B. Pyramid of biomass for grassland and pyramid of number for tree
- C. Pyramid of number for sea and pyramid of biomass for grassland

D. Pyramid of energy and biomass for a pond

Answer: C



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53. Which of the following is not a character of r-selected species?

A. Small sized adult

B. Long generation time

- C. A high energy allocation to reproduction
- D. Maximum population growth

Answer: B



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54. Insects like, cockroach and silverfish have which of the following respiratory pigments?

- A. Haemoglobin
- B. Haemocyanin

C. Erythrocruorin

D. None

Answer: B



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55. When a mutational event leads to the replacement of one codon for another calling for the same amino acid, the resulting mutation is known as

- A. Frameshift
- B. Non-sense
- C. Missense
- D. Silent

Answer: D



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56. Scum floats on the surface of the water because

A. The density of cells is more than that of

water

- B. Oxygen accumulates in it
- C. H_2S accumulates in it
- D. It generates methane gas

Answer: B



57. The number of vertebrochondral ribs in human is

- A. 2
- B. 4
- C. 6
- D. 14

Answer: C



- **58.** Choose the mismatched pair.
 - A. Limnology-study of fresh water ecosystem
 - B. Phenology-study of periodic change in plants and animals in relation to season
 - C. Autoecology study of interaction of individual organism or species with environment
 - D. Standing crop amount of inoroganic matters at any given time in an

ecosystem

Answer: D



- **59.** Which of the following statements are the functions of a medullary ray in plants?
- (i) Absorption
- (ii) Secondary growth
- (iii) Transmission of water and food
- (iv) Seat of origin or inter-fascicular cambium

- A. i, ii and iii
- B. i, iii and iv
- C. ii, iii and iv
- D. only i and iii

Answer: C



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60. Select the set of mesodermal structures from the following.

- A. Enamal, Pancreas
- B. Testis, Kidneys
- C. Liver, Hypothalamus
- D. Pituitary, Dentine

Answer: B



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61. The conversions of NO_3^- to NO_2^- occurs in

- A. Cytosol of plant cells
- B. Chloroplast
- C. Mitochondria
- D. Peroxisome

Answer: A



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62. Reduction of NAD does not occur in which of the following?

A. Isocitric acid $\,\,
ightarrow\, lpha$ -ketoglutaric acid

B. Malic acid ightarrow Oxaloacetic acid

C. Pyruvic acid \rightarrow Acetyl coenzyme

D. Succinic acid ightarrow Fumaric acid

Answer: D



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63. Choose the correct statement from the following.

- A. Widal test is the test used for detecting cholera.
- B. Restriction endonuclease is found in HIV.
- C. Malaria is caused by female Anopheles mosquito.
- D. Adult humans possess 26 cervical vertebrae.

Answer: C



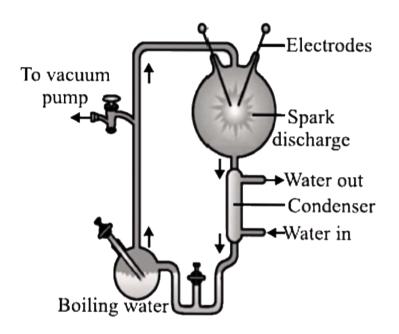
64. Which of the following extra-embryonic membrane plays an important role in the formation of the placenta?

- A. Yolk sac
- B. Amnion
- C. Chorion
- D. Allantois

Answer: C



65. Given experimental set up proves a particular theory of origin or evolution of life. This theory was given by:



A. Urey and Miller

B. Charles Darwin

- C. Von Helmont
- D. Oparin and Haldane

Answer: D



- **66.** The source of renin in the human kidney is
 - A. Macula densa
 - B. Juxta-glomerular cells
 - C. Interstitial cells

D. cells of ducts of Bellini

Answer: B



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67. Read the following statements:

i. Membrane-bounded inclusion bodies are not found in prokaryotic cells.

ii. Ribosomes are the site of protein synthesis.

iii. Pili are the surface of the bacteria which may play a role in motility .

iv. The cell membrane of prokaryotes is structurally similar to the eukaryotes.

Choose the option with the correct statements.

A. i, ii, iii, and iv

B. ii, iii and iv

C. i, ii and iv

D. i, iii and iv

Answer: C



68. Nucellar embryo is

A. Amphimictic diploids

B. Apomictic diploids

C. Apomictic haploids

D. Pentaploids

Answer: B



69. Select the odd one with respect to the functional aspect of the ecosystem.

- A. Decomposition
- B. Energy flow
- C. Nutrient cycling
- D. Species composition

Answer: D



70. Which	of the	following	has	the	maximum

% of the total cellular mass?

- A. Protein
- B. Carbohydrate
- C. Lipid
- D. Nucleic acid.

Answer: A



71. Which of the following is incorrect about the excretory system of human?

A. About 10 million nephrons are found in each kidney.

B. The right kidney is located lower than that of the left kidney.

C. Ultraflitration occurs at the level of

Bowman's capsule

D. Longer the loop of Henle more will be the concentration of urine.

Answer: A



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72. In the meiosis type of cell division, the centromere divides during which stage?

A. Never divides

B. Anaphase - I

- C. Interkinesis
- D. Anaphase II

Answer: D



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73. Mark the correct statement

- A. Lenticles remain always open.
- B. Lenticels pores are larger than stomata

C. Lenticular transpiration is only $1\,\%$ of the total transpiration.

D. All the abvoe.

Answer: D



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74. Which of the following hormone, in combination with auxin, stimulates cell division in plants and determines mainly the course of differentiation?

- A. Ethylene
- B. IAA
- C. Gibberellins
- D. Cytokinin

Answer: D



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75. Which of the following bones is not a cranial bone?

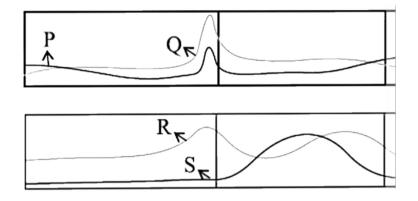
- A. Frontal bone
- B. Occipital bone
- C. Zygomatic bone
- D. Sphenoid bone

Answer: C



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76. P, Q, R and S are representing the hormone titres in the menstrual cycle starting from day one.



Which hormone is responsible for ovulation?

A. P

B. Q

C.R

D. S

Answer: B



77. Which is not true about cyclic photophosphorylation

A. It does not involve NADPH formation

B. Only PS-I is involved

C. It involves substrate - level phosphorylation

D. It does not generate oxygen.

Answer: C

78. The enzymes involved in the tranfer of electrons are named as

A. Isomerases

B. Transferases

C. Oxidoreductases

D. Lyases

Answer: C



79. Biosystematics aims at

- A. Identification and arrangement of organisms of the basis of their cytological characteristics.
- B. The classification of organisms based on broad morphological characters.
- C. Delimiting various taxa of organisms and establishing their relationships.

D. The classification of organisms based on their evolutionary history and establishing their phylogeny on the totality of various parameters from all

Answer: D



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fields of studies.

80. In a pond there are 20 lotus plants last year and through reproduction 8 new plants are added, taking the current population to 28. What is the birth rate?

- A. 4 offsprings per year
- B. 0.4 offspring per lotus per year
- C. 2.5 offspring per lotus per year
- D. 25 offsprings per year

Answer: B



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81. What are the assumptions of Hardy-Weinberg equilibrium?

A. Small population size, random mating, no selection, no migration, no mutation

B. Large population size, random mating, no selection, no migration, no mutation

C. Large population size, random mating,

heterozygotes survive the best, no

migration, no mutation

D. Large pupulation size, random mating, no selection, migrants enter from other population, no mutation

Answer: B



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82. In agarose gel electrophoresis, DNA molecules are separated on the basis of their

A. DNA migrates towards the negative electrode

B. Supercoiled plasmid migrate slower than their nicked counterpart

C. Larger molecules migrate faster than smaller molecules

D. Ethidium bromide can be used to visualize to DNA

Answer: D



83. Which of the following is not the feature of a cartilaginous fish?

A. Bilaterally flattened body

B. Absence of operculum

C. Copulatory organ present

D. Viviparity

Answer: A



84. Which of following part of the internal ear is not linked with balancing?

- A. Cochlea
- B. Saccule
- C. Utricle
- D. Semicircular canals

Answer: A



- A. Chasmogamy
- B. Cleistogamy
- C. Autogamy
- D. Allogamy

Answer: D



86. Some cells in the adult animals do not appear to exhibit division (e.g., heart cells) and many other cells divide only occasionally. Such cells are said to be in

- A. G_1 phase
- B. G_2 phase
- C. G_0 phase
- D. S phase

Answer: C



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87. Which of the following is incorrect about plant hormones?

A. They influence plant growth and development at low concentrations.

B. Abscisic acid is growth retarding hormone

C. They are organic compounds.

D. Ethylene decreases the respiration rate in fruits.

Answer: D



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88. In anaerobic glycolysis, 2 molecules of inorganic phosphate are used per molecule of glucose consumed. Which of the following enzyme catalyzes the uptake of inorganic phosphate?

- A. pyruvate kinase
- B. Hexokinase
- C. Phosphofructokinase
- D. Glyceraldehyde 3 phosphate dehydrogenase

Answer: C



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89. The Km of an enzyme is

- A. One half of the Vmax
- B. A dissociation constant
- C. The substrate concentration that gives maximal velocity
- D. The substrate concentration that gives half maximal velocity

Answer: D



90. Pathogenicity of Pneumococcus in the transformation experiment carried out by Griffith was due to

- A. Carotenoid
- B. RNA
- C. Protein
- D. Polysaccharide

Answer: D



